a1

1. (Amended) A hydro-power generation system, comprising:

a housing that includes an inlet and an outlet;

a rotor rotatably positioned within the housing such that the rotor is rotated by a flow of fluid through the housing;

a turbine nozzle fixedly coupled with the housing, wherein the turbine nozzle comprises a tip and a plurality of struts operable to direct the flow of water to the rotor at increased velocity to rotate the rotor; and

a stator fixedly positioned to surround the rotor such that rotation of the rotor induces the production of electricity.

a2

3. (Amended) The hydro-power generation system of claim 1, wherein the turbine nozzle is operable to increase the velocity of the fluid and direct the flow of fluid to achieve a predetermined angle of incidence of the fluid upon the rotor.

a3

14. (Amended) The hydro-power generation system of claim 1, further comprising a plurality of taps and an ultraviolet light source energized with the electricity produced, wherein the taps are dynamically operable to provide different voltage levels of electricity to initially energize and continue to energize the ultraviolet light source.

15. (Amended) The hydro-power generation system of claim 1, further comprising an ultraviolet light source and a plurality of coils, wherein the ultraviolet light source is energized with the electricity produced, and the coils are dynamically switchable from a parallel configuration to a series configuration to provide a first voltage for initial energization and a second voltage for continued energization of the ultraviolet light source.

16. (Amended) The hydro-power generation system of claim 1, wherein the hydro-power generation system is operable without flux concentrators to accelerate to a first RPM to initially energize an ultraviolet light source with a first voltage, wherein continued energization of the ultraviolet light source is operable to slow rotation of the hydro-power generation system to a second RPM and produce a second voltage.

a4

19. (Amended) A hydro-power generation system, comprising:

a housing having an airspace therein;

an impeller rotatably positioned within the airspace;

a nozzle fixedly positioned to penetrate the housing, wherein the nozzle is operable to direct a stream of fluid through the airspace to the impeller, energy in the stream of fluid transferred to the impeller to induce rotation of the impeller;

an outlet coupled to the housing, wherein the fluid is operable to fall by gravity through the airspace to the outlet and be channeled out of the housing; and

a generator rotatably coupled to the impeller, wherein rotation of the impeller induces the generation of electricity by the generator.

a5

25. (Amended) They hydro-power generation system of claim 24, wherein each of the blades comprise at least two parabolic shaped paddles.

a6 cont.

28. (Amended) The hydro-power generation system of claim 19, wherein the generator is operable without flux concentrators to accelerate to a first RPM to initially energize an ultraviolet light source with a first voltage, wherein continued energization of the ultraviolet light source is operable to slow rotation of the generator to a second RPM and produce a second voltage.

29. (Amended) A method of supplying electricity using a flow of fluid, the method comprising:

providing a housing that includes an inlet and an outlet;

supplying the flow of fluid to the inlet of the housing, wherein the fluid flows through the housing to the outlet;

rotating a rotor that is positioned in the housing such that the rotor is surrounded by a stator, wherein the rotor rotates as a result of the fluid flowing through the housing;

channeling the fluid flowing through the housing to the rotor with a turbine nozzle to increase the velocity of the flowing fluid, wherein the turbine nozzle comprises a tip and a plurality of struts; and

a6 cancelled.

generating electricity with the rotor and the stator, wherein rotation of the rotor induces the generation of electricity.

a7

38. (Amended) The method of claim 29, further comprising the act of dynamically adjusting the voltage and current levels of the electricity with a plurality of coils in response to initial energization and continued energization of an ultraviolet light source by the electricity generated.

a8

41. (Amended) The method of claim 29, further comprising the acts of accelerating the hydro-power generation system in the absence of flux concentrators to a first RPM to initially energize an ultraviolet light source; and slowing the hydro-power generation system to a second RPM and a second voltage by continued energization of the ultraviolet light source.

42. (Amended) A method of supplying electricity using a flow of fluid, the method comprising:

providing a housing having an airspace;

supplying the flow of fluid to a nozzle;

directing the fluid sprayed from the nozzle at an impeller rotatably positioned within the airspace;

rotating the impeller and a rotor fixedly coupled to the impeller with energy transferred from the fluid, wherein the rotor is cooperatively operable with a stator to form a generator;

channeling fluid out of the housing, wherein the fluid falls by gravity through the airspace to an outlet of the housing after impact with the impeller; and

generating electricity with the generator.

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51. (Amended) The method of claim 42, further comprising the acts of accelerating the generator in the absence of flux concentrators to a first RPM to initially energize an ultraviolet light source with a first voltage; and slowing rotation of the generator to a second RPM and a second voltage by continued energization of the ultraviolet light source.

a10

53. (New) The hydro-power generation system of claim 1, wherein the stator comprises a plurality of exit guide vanes and a fin, the exit guide vanes and the fin cooperatively operable to channel the flow of fluid to the outlet.

54. (New) The hydro-power generation system of claim 1, wherein the housing comprises a first section and a second section, the first section detachably coupled with the second section to facilitate assembly and maintenance.

55. (New) The hydro-power generation system of claim 54, wherein the rotor and stator are disposed in the second section and the turbine nozzle is disposed in the first section.

56. (New) The hydro-power generation system of claim 1, wherein the fluid is drinking water.

57. (New) The hydro-power generation system of claim 24, wherein each of the blades comprise a slot, the slot operable to allow energy in the stream of fluid to pass to another of the blades as the impeller rotates.

58. (New) The method of claim 29, comprising the initial act of adjusting the struts to control the velocity of the flow of liquid.

59. (New) The method of claim 29, comprising the initial act of adjusting the struts in order to adjust at least one of the angle of incidence of the liquid on the rotor, efficiency, turbulence and pressure drop.